Private Governance

EES 3310/5310

Global Climate Change

Jonathan Gilligan

Class #38: Wednesday April 15 2020

Announcements

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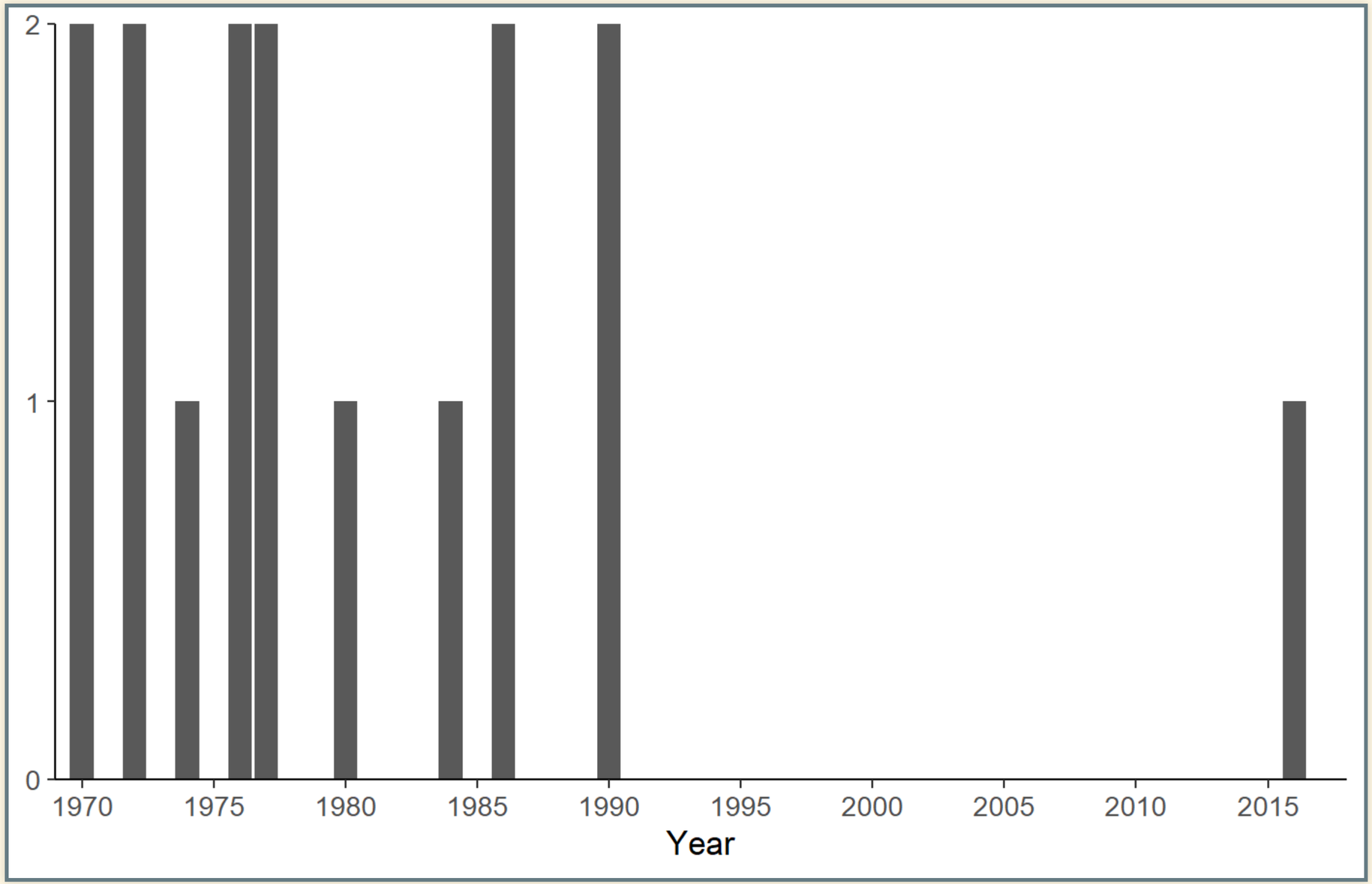
- Finishing the Semester:
  - If you have incomeplete work for labs and are planning to finish and submit, please email Ms. Best to let her know
  - The final exam will be optional:
    - Open book, open notes essay exam.
    - Will be distributed Monday April 20
    - Due Wednesday April 29
    - Submit by email to Professor Gilligan
    - If you choose not to do the exam, I will give you a grade based on labs, midterm exam, and participation:
      - Participation 5%
      - Mid-term 35%
      - Labs 60%
    - If you do the exam, the ***minimum grade*** you get will be what you would have gotten based on work before the exam
      - i.e., if you choose to do the exam, it ***cannot*** make your grade lower.

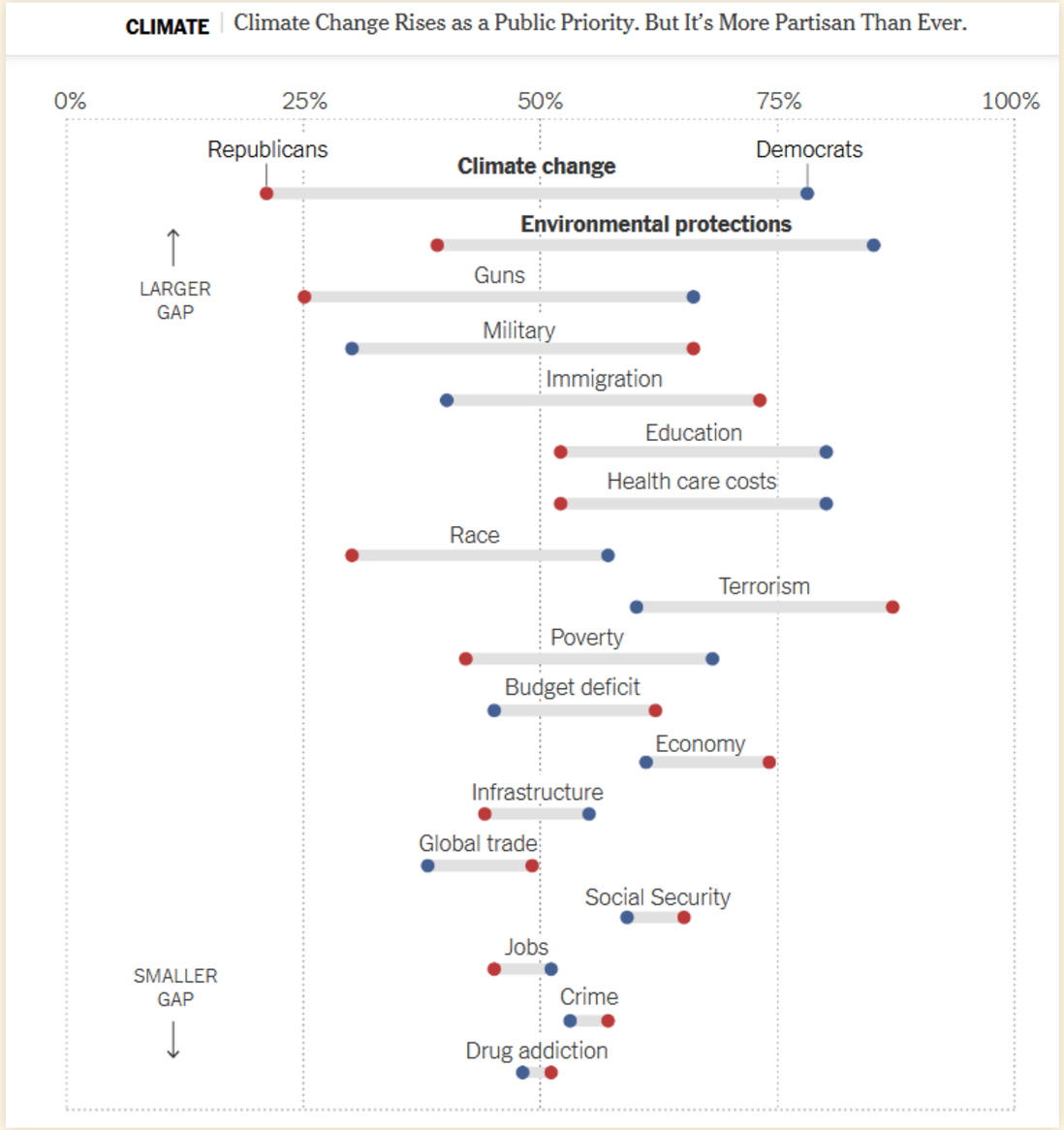
Obstacles to Public Governance

Major Pollution-Control Statutes



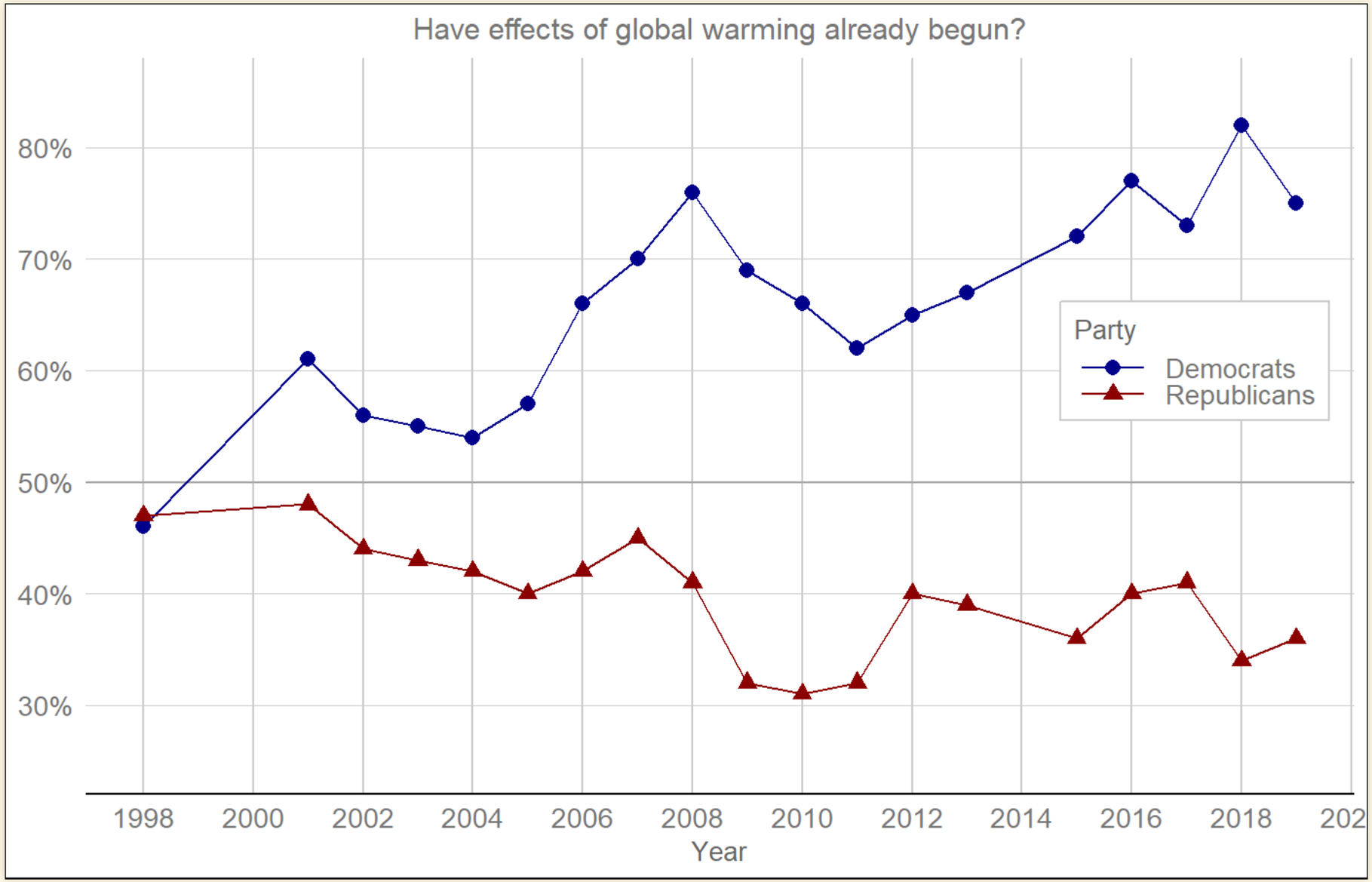
Partisan Split:

- Climate policy is the most divisive issue
- Greater partisan polarization than abortion



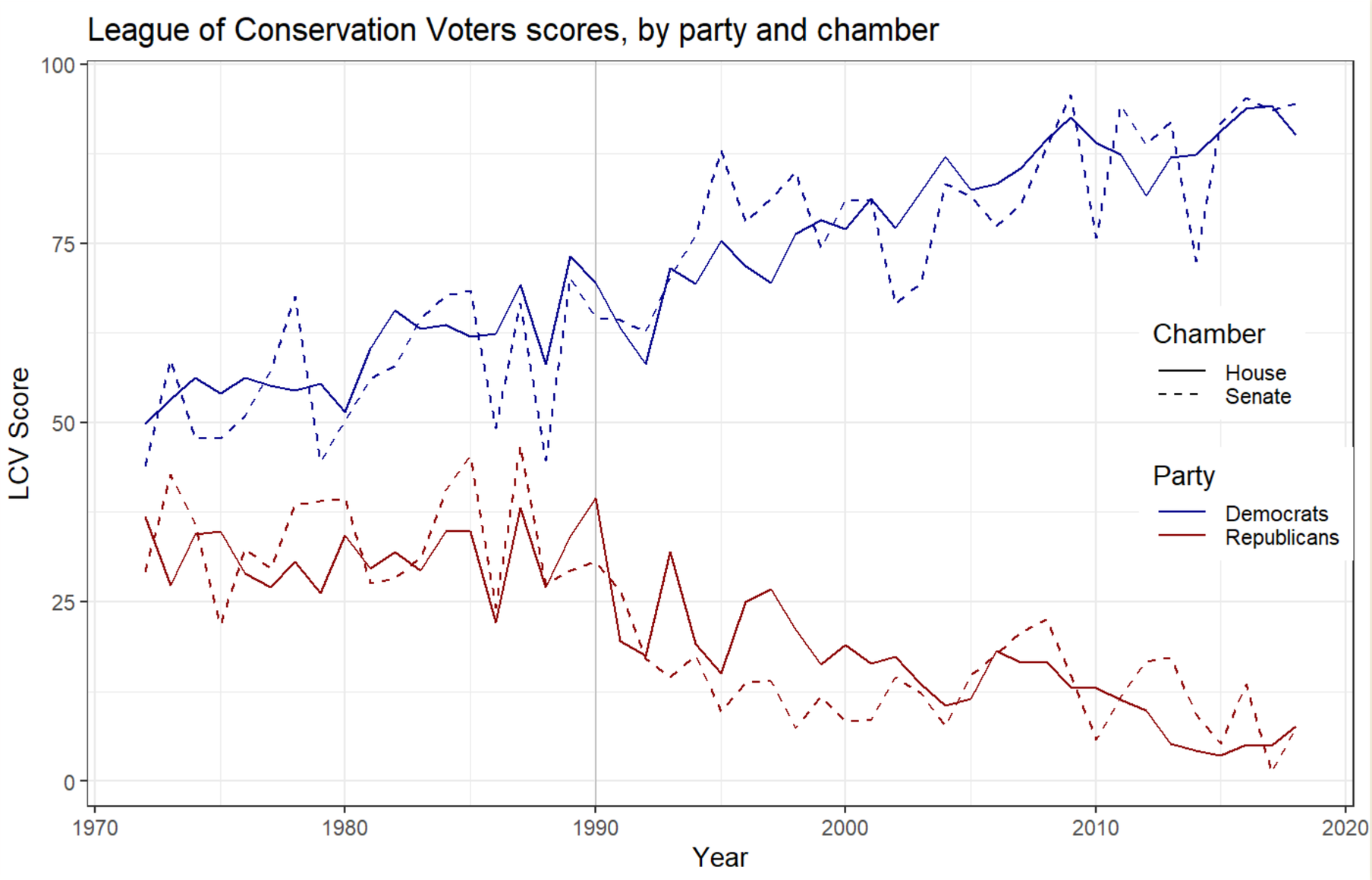
Pew: As Economic Concerns Recede, Environmental Protection Rises on the Public's Policy Agenda

Partisan Split on Science



Gallup: Americans' Views on Global Warming, 2019, U.S. Concern About Global Warming at Eight-Year High (2016) Republican Skepticism Toward Global Warming Eases (2013),

Polarization in Congress 1970–2015



Data: League of Conservation Voters

Problems Are Deeper than Partisanship

- Public distrust of “big government”:
  - 67% of the public think *big government* is a greater threat to the nation than *big business* or *big labor*.
    - 81% of Republicans
    - 67% of Independents
    - 51% of Democrats

Gallup, "Americans Still See Big Government as Top Threat (2017)

Photo credit: Michael Gerrard

Psychological Heuristics

- Solution aversion:

  If a solution is unpalatable, deny the problem exists.

- Motivated reasoning:

  Desire to reach a certain conclusion leads to biased and selective examination of evidence

- Cultural cognition:

  Credibility of expertise depends on perception of shared values.

  Trust is based on feeling someone would understand what's important to you.

  Someone who shares your cultural roots.

Solution Aversion

I assumed like everybody else, way back when everyone was talking about global warming and all that, I assumed that that was probably right until I found out what it was going to cost. — Sen. James Inhofe

Jack Fitzpatrick, “Inhofe Thought Climate Science Was ‘Probably Right’ Before He Saw Price Tag.” *Morning Consult*, Dec. 8, 2016.

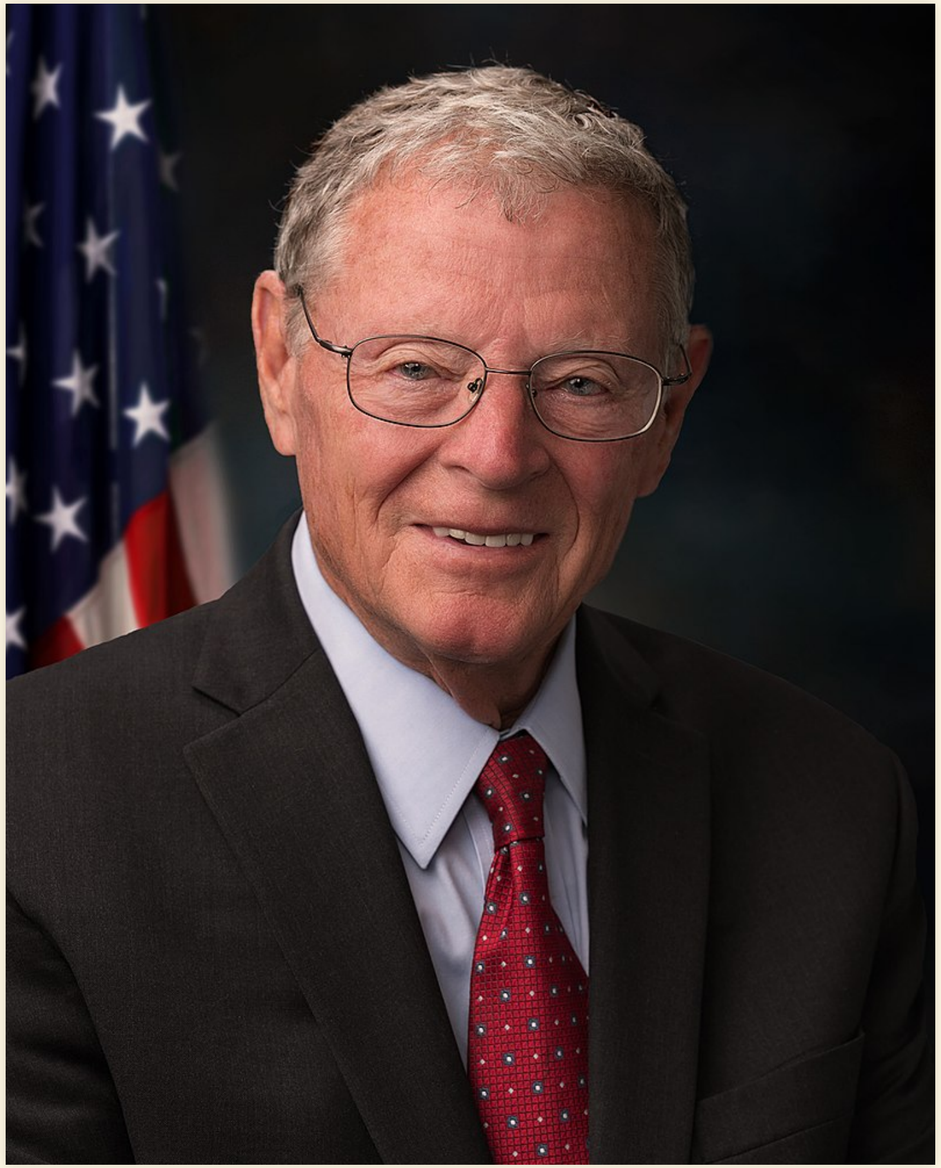


Photo credit: U.S. Senate Photography

Problems with Policy Approach So Far

- Focus on **best** solutions (e.g., carbon tax)
- Emphasis on how well it will work when put into practice
- Neglects how hard it is to get government to adopt best solutions
  - "Political opportunity cost"
- Second-best or third-best may be easier to enact quickly

> *A good plan violently executed now is better than a perfect plan executed next week*
> *—Gen. George Patton, attrib.*

Private Governance

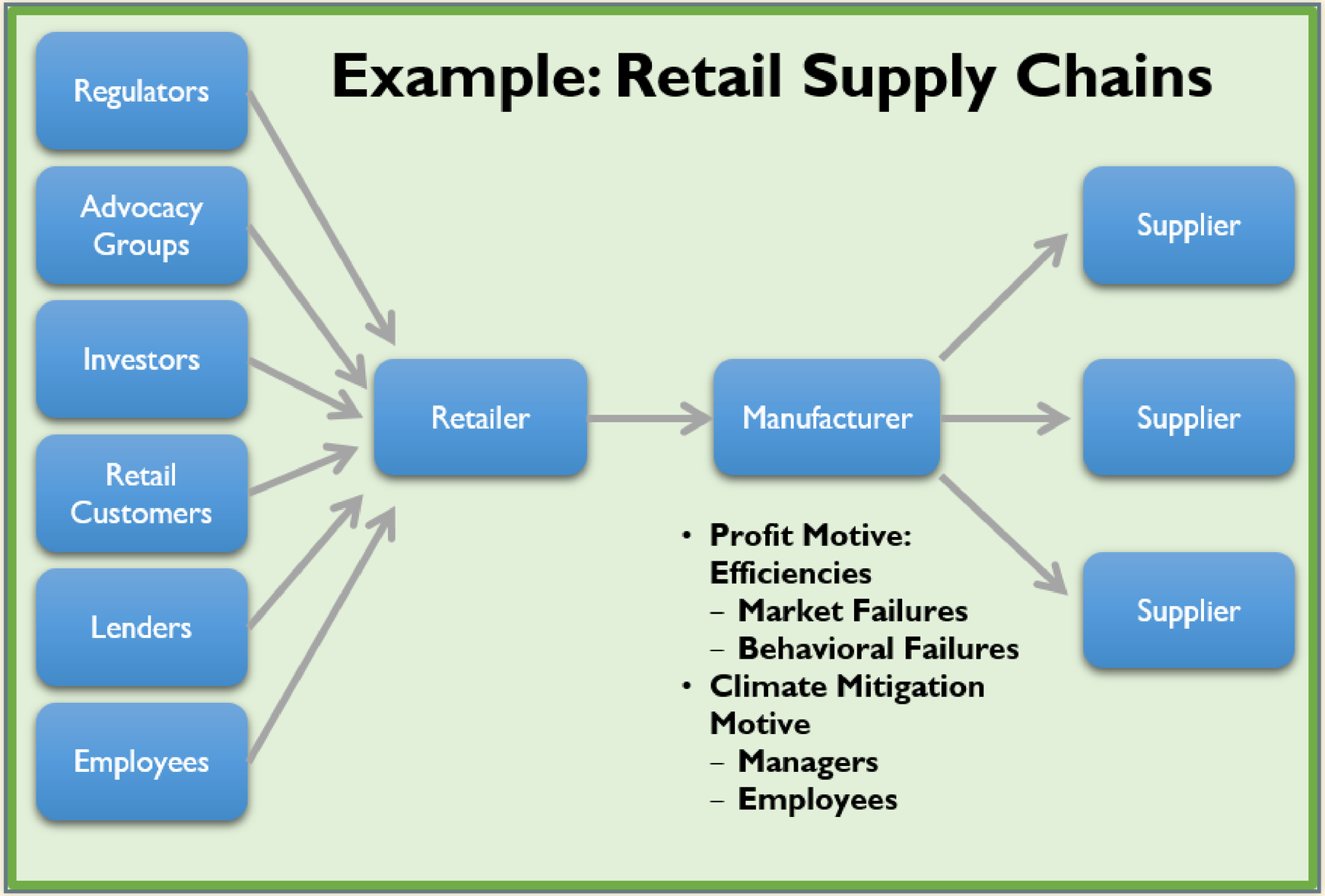
Private Environmental Governance

- **Actor:**
  - Government → Private organization
- **Action:**
  - Law, policy → Private initiative

Examples of Private Environmental Governance

- **Institutions**
  - Marine Stewardship Council (10% of all fish sold)
  - Forest Stewardship Council (14% of all lumber & wood products)
  - Carbon Disclosure Project
- **Practices**
  - Supply-Chain contracting requirements
    - More than 125 large corporate buyers, with >$3.6 trillion in procurement, reduced supply-chain emissions by more than 640 million tons CO_2.
      - More than 1/3 of those suppliers are pressuring *their* suppliers to cut emissions.
    - Walmart & Target regulate toxic chemicals far more strictly than the government does.
  - Internal carbon taxes
    - 517 companies, including Microsoft, Novartis, Yale University,

Example: Retail Supply Chains



Motives

- Self-interest
  - Financial gains from efficiency
  - Third-party pressure
    - Value of reputation
- Beyond self-interest
  - Support for climate action
  - Sense of responsibility (individual & org)

Corporate Initiatives

- Carbon Disclosure Project (CDP)
  - Used by >500 investors with ~$100 Trillion (pension funds, etc.)
- Participation:
  - Participating companies reduced their emissions by 522 million tons CO_2e in 2018
- Around half of S&P 500 have set climate or clean-energy targets

Specifics

- WalMart pledged 1 billion tons CO_2e emissions cuts through 2030
- Microsoft has been 100% carbon neutral since 2012
  - Pledged to remove all its past CO_2 emissions by 2050
- In 2017 Shell oil pledged 50% reduction of emissions by 2050
  - Includes emissions from “energy products” it sells (oil, etc.)

Policy Analysis for Private Governance

Principles of Private Governance Analysis

- **Technical Potential**

  Reduction if everyone takes action

- Behavioral Plasticity

  What fraction of actors would take action with appropriate incentives?

- Policy Plasticity

  Potential for public or private actors to provide incentives

Corporate Pressure to Adopt Green Energy

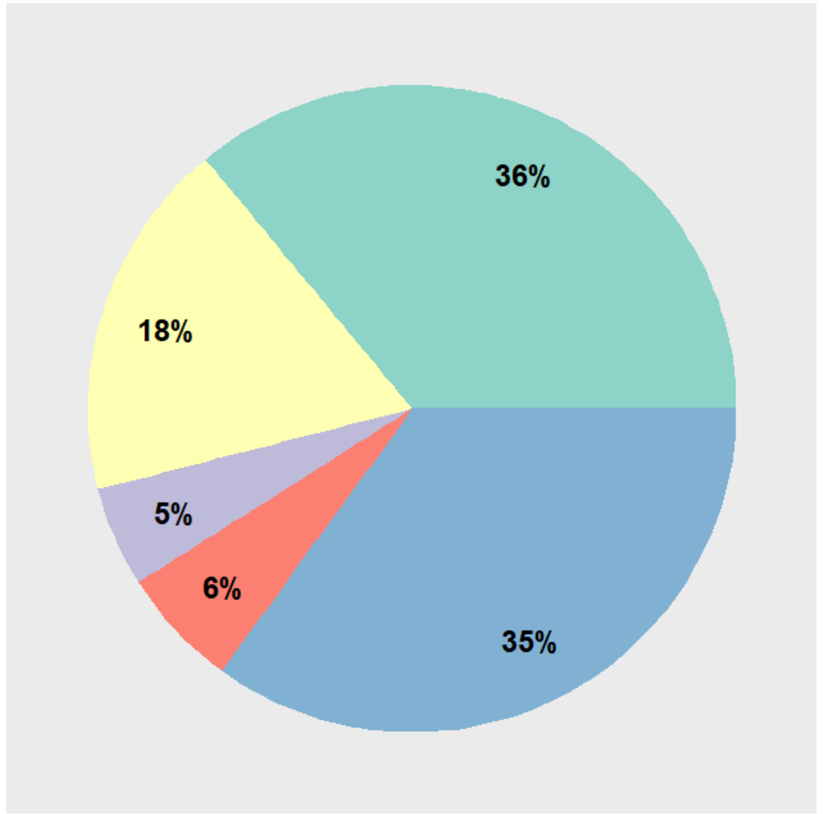
- Major cloud computing companies are aggressively cutting emissions:
  - Improving energy efficiency of data farms
    - Cloud computing is 100 times more energy efficient than 10 years ago
  - Powering data farms with renewable electricity
- In the Southeast, state laws & utility regulations are often hostile to renewables
- Amazon, Google, Facebook, etc. have pressured North Carolina & Virginia to change regulations to be more favorable to renewables
- Pressure Duke Power, Dominion Power to build hundreds of megawatts of new solar and wind power.
  - Dominion Power just announced that it was giving up its plans to expand natural gas generation.

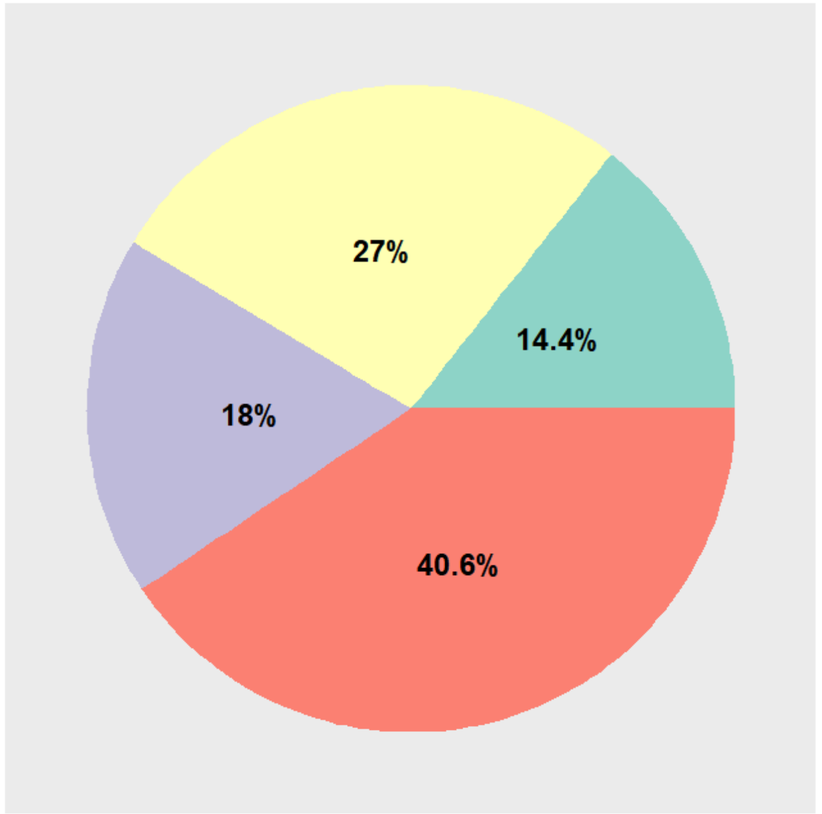
Diet and Climate

- Livestock produce 14–18% of greenhouse gas emissions
  - Beef and lamb are much worse than other kinds of meat
- Employers motivating employees to eat less meat:
  - WeWork requires all business meals to be vegan
  - Copenhagen Business School makes vegetarian meals the default.
    - Employees can opt-out and order meat
    - 90% of meals were vegetarian
    - Employees voted to keep the program
  - Google is studying what motivations work best to reduce employee meat consumption
  - Burger King, White Castle, other chains add meatless burgers
- Plant-based products could replace 10% of global meat market by 2030
  - This would reduce emissions by 750 million tons CO_2-equivalent

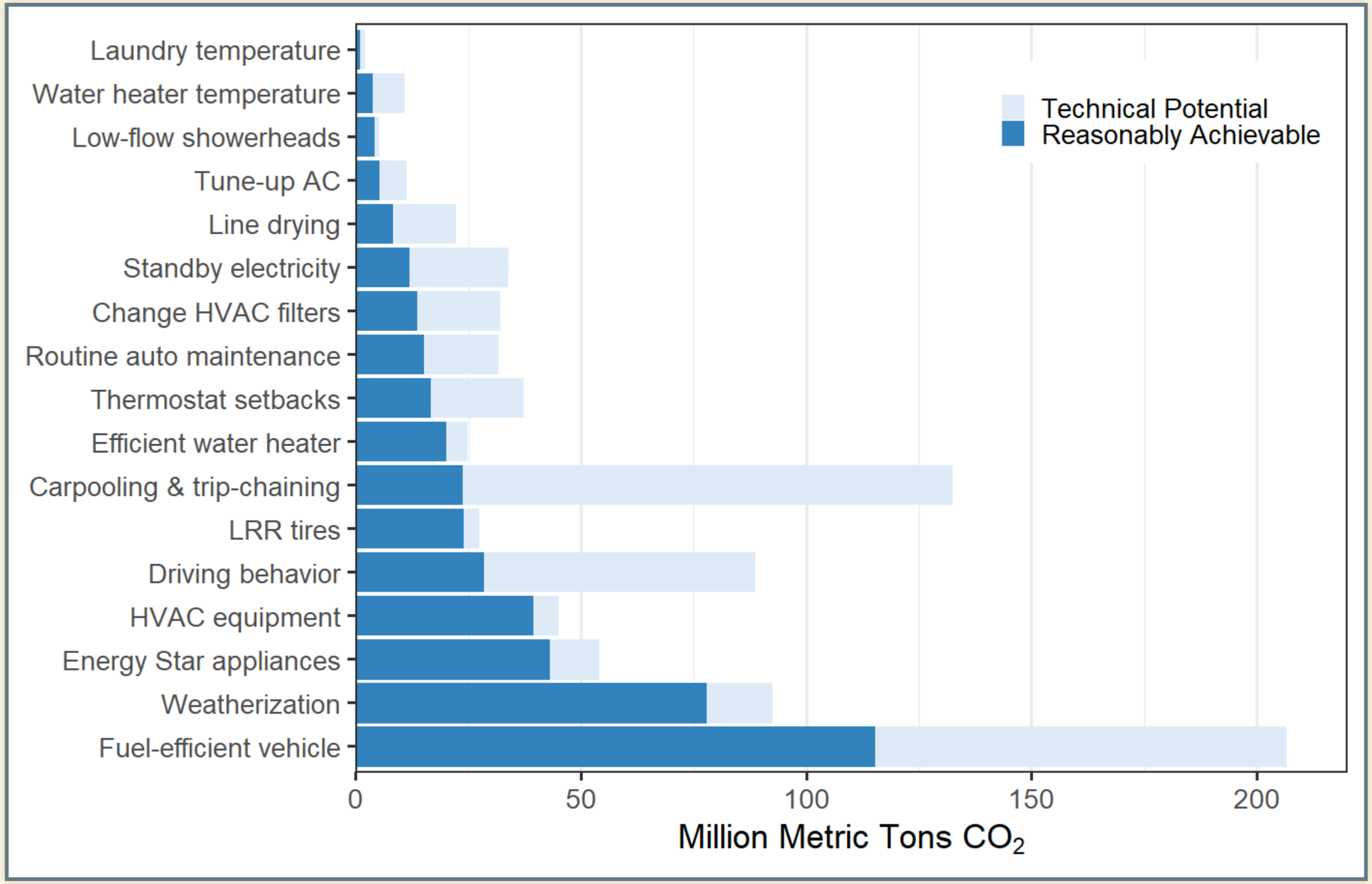
Household Sector

Who Emits CO_2?





Behavioral Wedge Analysis



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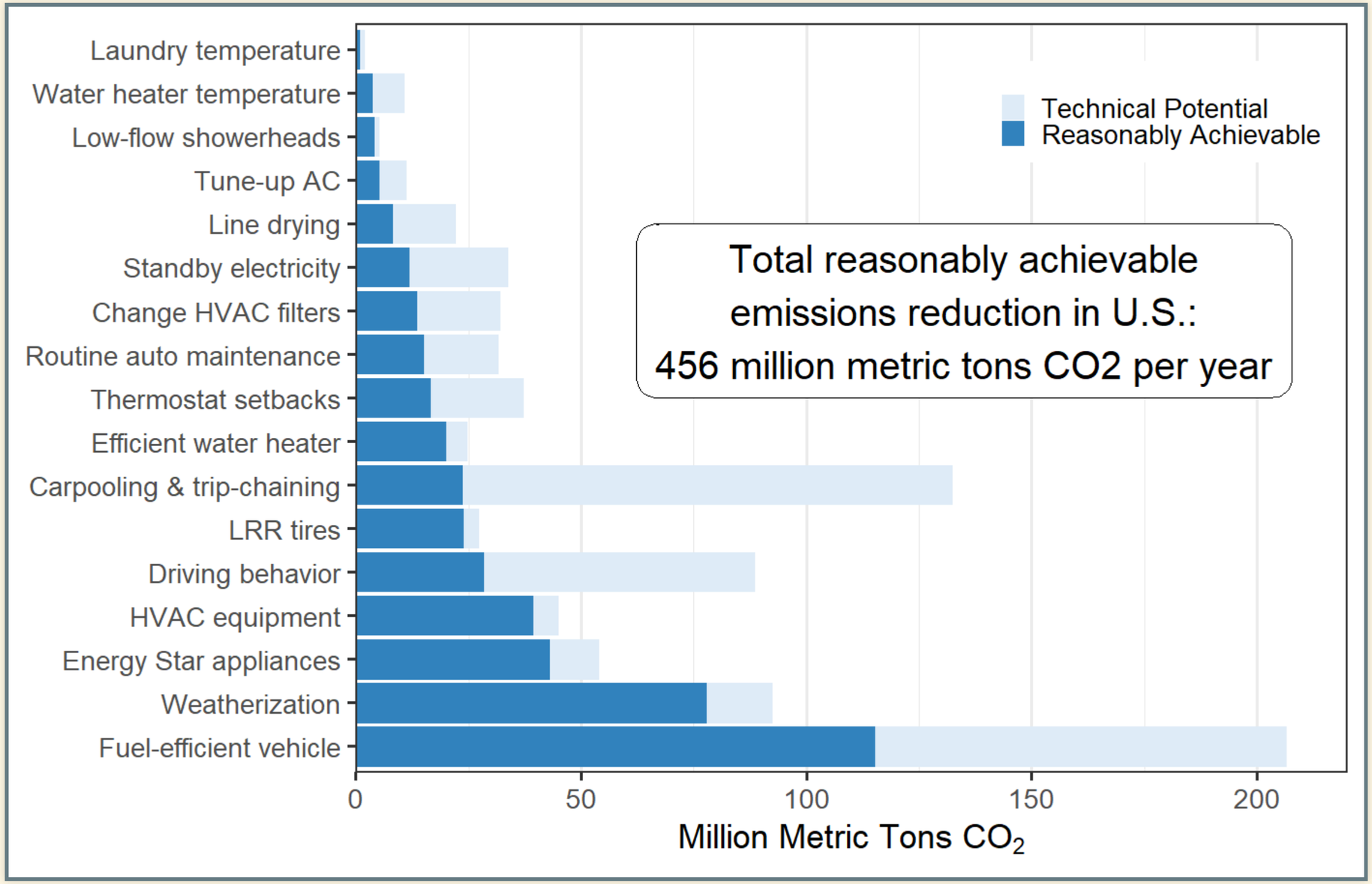
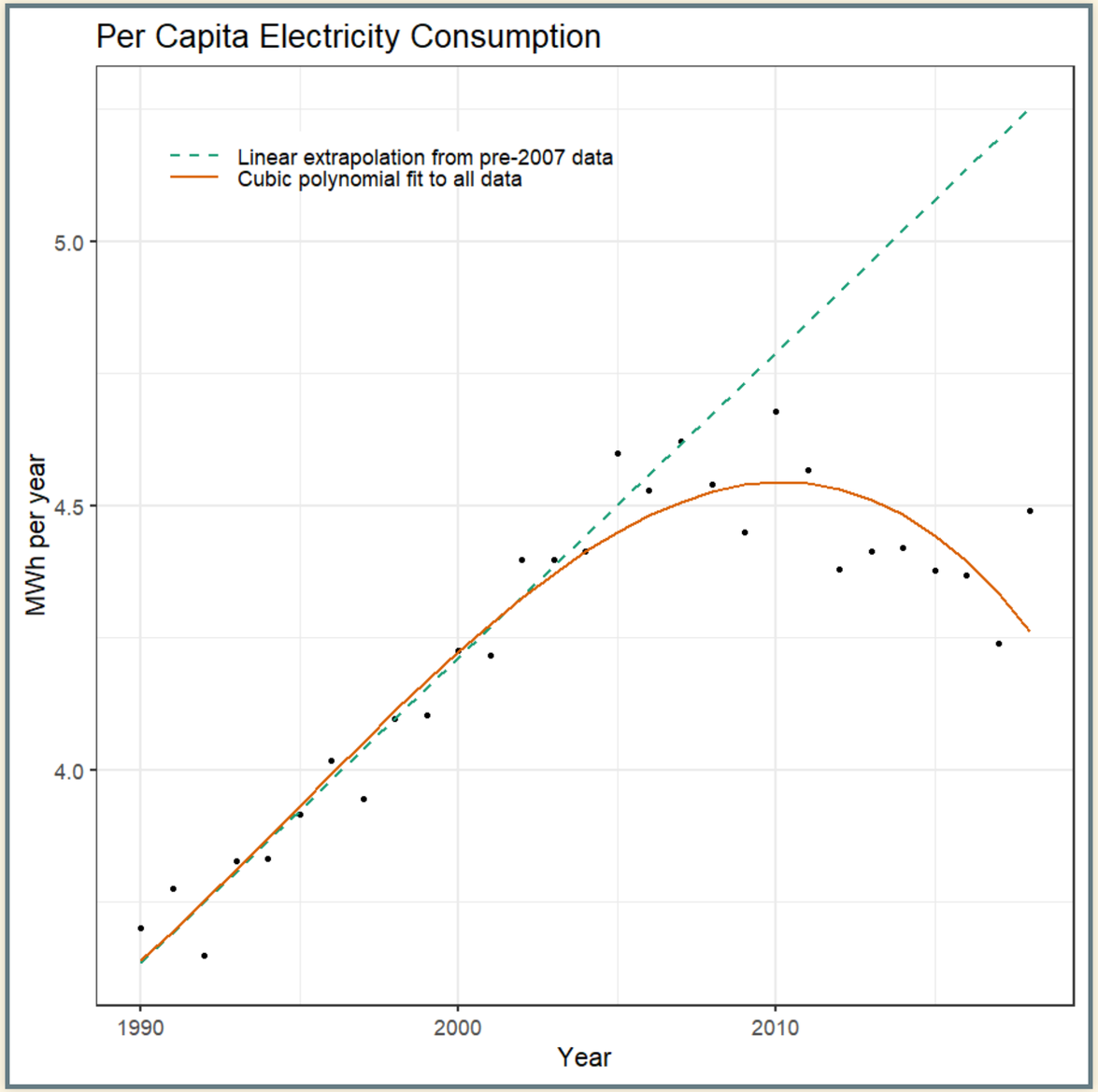
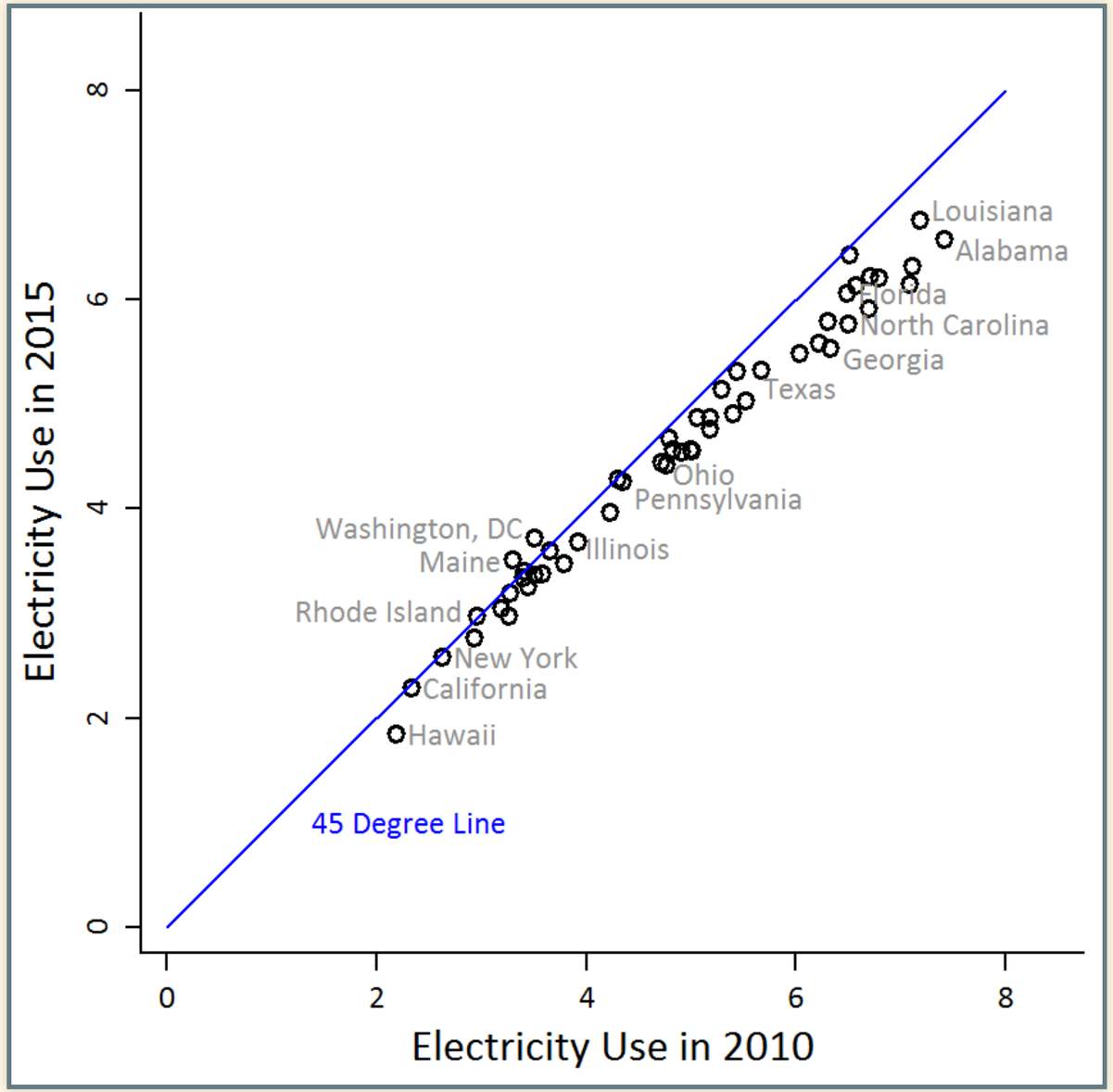


Recent Developments: Household Electricity Use

- LED and CFL lighting saves consumers money & reduces greenhouse gas emissions
- Reduced household electricity use cut U.S. emissions by 130 million metric tons of CO_2.



Reductions in 48 States

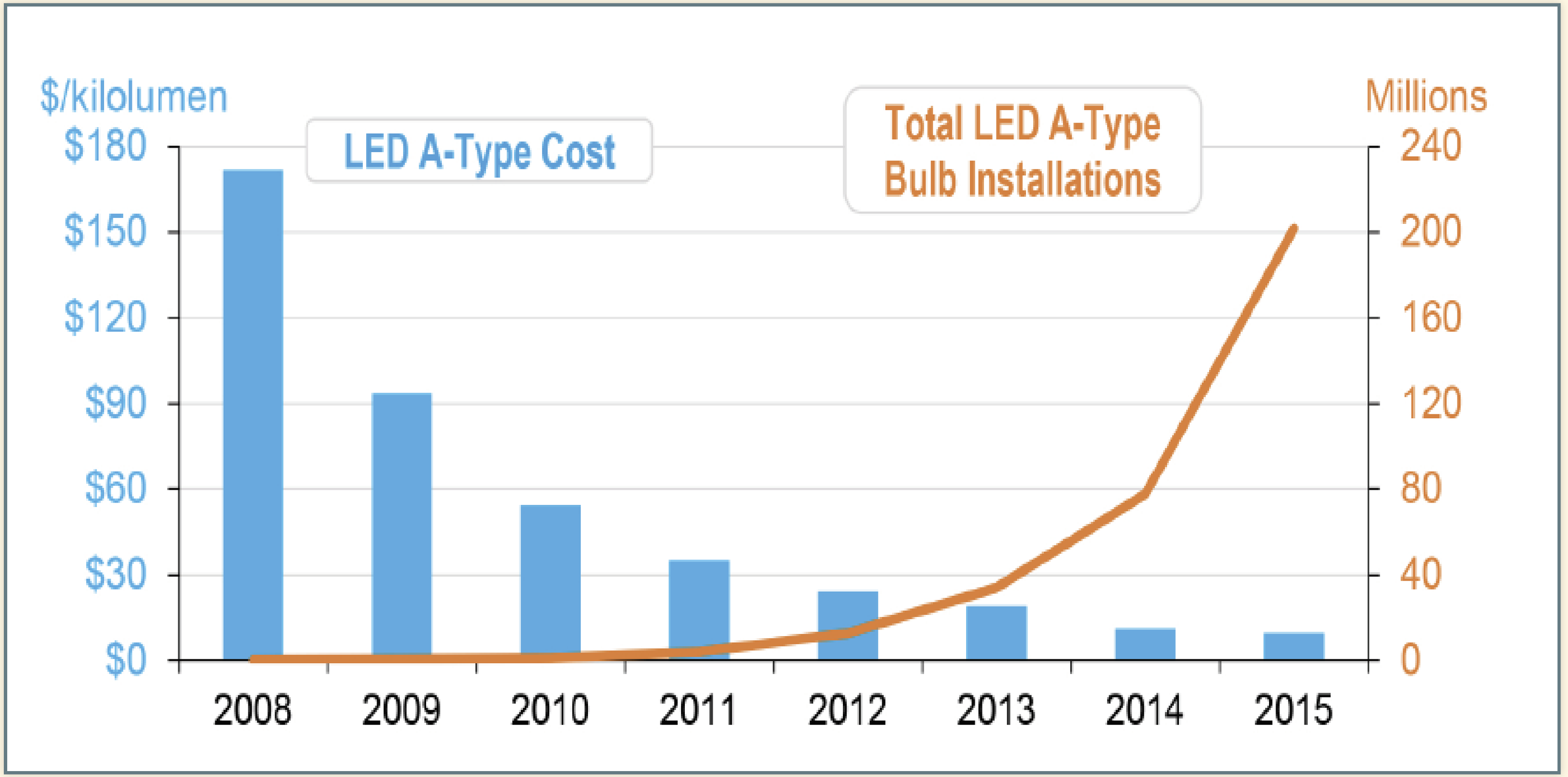


Lucas Davis, https://energyathaas.wordpress.com/2017/05/08/evidence-of-a-decline-in-electricity-use-by-u-s-households/

Private Governance

- 2007: WalMart sets and exceeds goal of selling 100 compact fluorescent light bulbs in one year.
  - Meets goal in 10 months
- 2011: WalMart launches competition among suppliers:
  - Best high-quality LED bulb under $10: We will help you sell hundreds of millions!
- 2013: WalMart teams up with TCP to launch 60W equivalent bulb for less than $9
- Replacing 5 most used bulbs in your house with LEDs will save around $75/year

LED Light Bulb Sales



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Conclusions

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- Private governance can likely reduce global emissions by more than 1 billion tons per year rapidly
- This isn’t even close to solving the whole climate problem
- But it can help considerably, and buy time to enact other measures before it’s too late.